

Derecho - A widespread and usually fast-moving windstorm associated with convection. Derechos include any family of downburst clusters and can produce damaging thunderstorm winds over areas hundreds of miles long and more than 100 miles across.

Downburst - A strong downdraft resulting in an outward burst of damaging winds on or near the ground. Downburst winds can produce damage similar to a tornado.

Downdraft - A small-scale column of air that rapidly sinks toward the ground, usually accompanied by precipitation as in a shower or thunderstorm.

Dry line - A boundary separating moist and dry air masses. It is an important factor in severe weather frequency in the Great Plains. It typically lies north-south across the central and southern High Plains during the spring and early summer, where it separates moist air from the Gulf of Mexico and dry desert air from the southwestern states. The dry line typically advances eastward during the afternoon and retreats westward at night. However, a strong storm system can sweep the dryline eastward into the Mississippi Valley, or even farther east, regardless of the time of day.

Fujita Scale (or F-Scale) - A scale of wind damage intensity in which wind speeds are inferred from an analysis of wind damage. All tornadoes, and most other severe local wind storms, are assigned a single number from the scale according to the most intense damage caused by the storm.

- F0 (weak): 40-72 mph, light damage
- F1 (weak): 73-112 mph, moderate damage
- F2 (strong): 113-157 mph, considerable damage
- F3 (strong): 158-206 mph, severe damage
- F4 (violent): 207-260 mph, devastating damage
- F5 (violent): 261-318 mph, (rare) incredible damage

Funnel cloud - A funnel extending from the base of a towering cumulus or cumulonimbus cloud, associated with a rotating column of air that is NOT in contact with the ground. The terms funnel cloud and tornado are NOT interchangeable.

Gust front - The leading edge of gusty surface winds from thunderstorm downdrafts. Passage of the gust front is usually marked by cool, gusty winds. The gust front often precedes the precipitation by several minutes.

Gustnado - A short-lived vortex (rotation) near the ground and not attached to the base of a convective cloud. They often develop along a gust front. They are classified as thunderstorm wind events.

Hook echo - A radar pattern characterized by a hook-shaped (or figure 6-shaped) extension of a thunderstorm echo, usually in the southwest part of the storm. A hook is often associated with a mesocyclone, and indicates favorable conditions for tornado development.

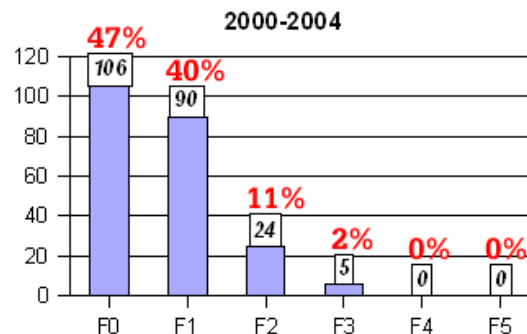
Instability - The tendency for air parcels to accelerate when they are displaced from their original position; the greater the instability, the greater the potential for severe thunderstorms.



Tornadoes

They are the most feared offspring of a severe thunderstorm, and rightfully so. Tornadoes kill roughly 65 people annually across the United States.

Tornadoes in Arkansas



While tornadoes can be deadly, the vast majority are weak (path widths less than 100 yards with wind speeds generally less than 100 mph). In Arkansas, 196 of 225 tornadoes (87%) were classified as "weak" from 2000 through 2004.

None of these weak tornadoes were killers. It was the stronger tornadoes (with wider path widths and more powerful winds) that claimed 6 lives across the state. Tornadoes classified as F3 (158-206 mph winds) were responsible for 4 of the 6 deaths...even though they were spawned only 2% of the time.



Fact: It is common to have many weak tornadoes, and few (or no) lives lost, and a few strong tornadoes but with many lives lost.

The point here is that tornadoes are seldom deadly. If you go to an interior room away from windows on the lowest floor of your home, in most cases you will be safe. One other point...make sure you go to a building on a permanent foundation. Mobile homes